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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,250	12/07/2000	Vamsi Krishna Sangavarapu	JP920000280US1	9490

39903 7590 12/02/2004

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EXAMINER

KANG, INSUN

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/732,250	SANGAVARAPU ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Insun Kang	2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 8/18/2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This action is in response to the Appeal Brief filed 8/18/2004.
2. In view of the appeal brief filed on 8/18/2004, prosecution is hereby reopened. New grounds of rejection are introduced below. To avoid abandonment of the application, appellant must exercise one of the following two options:
  - (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or, (2) request reinstatement of the appeal. If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).The previous office action has been withdrawn. Claims 1-18 are pending in the application.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Per claims 1, 7, and 13, the claims recite "checking a breakpoint data structure to determine if...a zombie breakpoint." Causing an action or intended action is different from actually performing an action. Checking the breakpoint data structure to

**determine** something does not necessarily mean that the determination step is actually performed. The claim does not include a description of what the checking function actually was or did, with respect to how the determining was conducted. The checking a breakpoint data structure step is only **for** determination of the target dependent portion. Therefore, the determination step is only an intended action.

The claims appear to be incomplete. The claims do not recite the alternative condition. It is unclear how the alternative condition is handled or if the "if" condition is only checked and handled by simply ignoring the other condition.

Further, it is unclear whether the checking step, "if said breakpoint condition does not exist, identifying said breakpoint as a zombie breakpoint" is performed based on the result of the verifying step, since there is no additional indentation before "if said... does not exist." It is interpreted as "the step, if said breakpoint condition does not exist, is determined by the verifying step." Appropriate correction is required.

As per claims 2-6, 8-12, and 14-18, these claims are rejected for dependency on the above rejected parent claims.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Bhattacharya (US 6,708,326).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Per claim 1:

Bhattacharya discloses:

- checking a breakpoint data structure to determine if the data structure has an entry for a breakpoint known to a debugging process for a certain address where a breakpoint fired ("conditional breakpoints this could just be a check for the condition," col. 6 lines 45-67)
- if no entry is found by the checking of the data structure for the entry for the known breakpoint, verifying if a breakpoint condition continues to exist at the address where the breakpoint fired ("Is the breakpoint register in use, ie is there an earlier breakpoint to

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harden in this process context? If yes, then continue to step 2, else go to step 3," col. 6 lines 45-67)

-if said breakpoint condition does not exist, identifying said breakpoint as a zombie breakpoint ("Record the breakpoint just hit as the last active breakpoint...the debug register settings, will still to present, it is possible to distinguish this situation from a genuine breakpoint and simply ignore it," col. 7 lines 1-35) as claimed.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Bhattacharya teaches:  
a special breakpoint instruction at said address, being the exception location (see section 1. Setting a Breakpoint) as claimed.

Per claim 3:

The rejection of claim 1 is incorporated, and further, Bhattacharya teaches:  
an illegal breakpoint instruction (see section 1. Setting a Breakpoint) as claimed.

Per claim 4:

The rejection of claim 1 is incorporated, and further, Bhattacharya teaches:  
special debug register (see section 1. Setting a Breakpoint) as claimed.

Per claim 5:

The rejection of claim 1 is incorporated, and further, Bhattacharya teaches:

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physical settings for causing a breakpoint exception at a particular location are detectable from a breakpoint handler (see section 1. Setting a Breakpoint) as claimed.

Per claim 6:

The rejection of claim 5 is incorporated, and further, Bhattacharya teaches:

breakpoint removal logic (see section 1. Setting a Breakpoint) as claimed.

Per claims 7-12, they are the apparatus versions of claims 1-6, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-6 above.

Per claims 13-18, they are the product versions of claims 1-6, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-6 above

7. Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Bates (US 6,658,650).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

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Per claim 1:

Bates discloses:

-checking a breakpoint data structure to determine if the data structure has an entry for a breakpoint known to a debugging process for a certain address where a breakpoint fired ("it is determined whether a hit control point is a service entry point," col. 8 lines 34-47)

-if no entry is found by the checking of the data structure for the entry for the known breakpoint, verifying if a breakpoint condition continues to exist at the address where the breakpoint fired ("if the hit control point is a service entry point, control passes to block 94 to determine whether the current job is under debug. If not, control passes to block 96 to determine whether the user ID that owns the current job is the same as that stored in the control point table for the service entry point," col. 8 lines 34-47)

-if said breakpoint condition does not exist, identifying said breakpoint as a zombie breakpoint ("if the user ID of the current job does not equal that for the service entry point, all of the conditions necessary for signaling a service entry point are not met, whereby control passes directly to block 99 to emulate the saved opcode without halting the program," col. 8 lines 35-54) as claimed.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Bates teaches:

a special breakpoint instruction at said address, being the exception location (col. 6 lines 46-48) as claimed.



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Per claim 3:

The rejection of claim 1 is incorporated, and further, Bates teaches:  
an illegal breakpoint instruction (col. 6 lines 46-48) as claimed.

Per claim 4:

The rejection of claim 1 is incorporated, and further, Bates teaches:  
special debug register (col. 6 lines 46-48) as claimed.

Per claim 5:

The rejection of claim 1 is incorporated, and further, Bates teaches:  
physical settings for causing a breakpoint exception at a particular location are  
detectable from a breakpoint handler (col. 6 lines 23-32) as claimed.

Per claim 6:

The rejection of claim 5 is incorporated, and further, Bates teaches:  
breakpoint removal logic (col. 6 lines 23-32) as claimed.

Per claims 7-12, they are the apparatus versions of claims 1-6, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-6 above.

Per claims 13-18, they are the product versions of claims 1-6, respectively, and are rejected for the same reasons set forth in connection with the rejection of claims 1-6 above.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-F 9:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 571-272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

I. Kang  
11/24/2004

  
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